UNIT TERMINAL OBJECTIVE

5-10 At the completion of this unit, the EMT-Critical Care Technician student will be able to utilize assessment findings to formulate a field impression and implement the management plan for the patient experiencing a gynecological emergency.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Critical Care Technician student will be able to:

- 5-10.1 Review the anatomic structures and physiology of the female reproductive system. (C-1)
- 5-10.2 Describe how to assess a patient with a gynecological complaint. (C-1)
- 5-10.3 Explain how to recognize a gynecological emergency. (C-1)
- 5-10.4 Describe the general care for any patient experiencing a gynecological emergency. (C-1)
- 5-10.5 Describe the pathophysiology, assessment, and management of specific gynecological emergencies, including: (C-1)
 - a. Pelvic inflammatory disease
 - b. Ruptured ovarian cyst
 - c. Ectopic pregnancy
 - d. Vaginal bleeding
- 5-10.6 Describe the general findings and management of the sexually assaulted patient. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Critical Care Technician student will be able to:

- 5-10.7 Value the importance of maintaining a patient's modesty and privacy while still obtaining necessary information. (A-2)
- 5-10.8 Defend the need to provide care for a patient of sexual assault, while still preventing destruction of crime scene information. (A-3)
- 5-10.9 Serve as a role model for other EMS providers when discussing or caring for patients with gynecological emergencies. (A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the EMT-Critical Care Technician student will be able to:

- 5-10.10 Demonstrate how to assess a patient with a gynecological complaint. (P-2)
- 5-10.11 Demonstrate how to provide care for a patient with: (P-2)
 - a. Excessive vaginal bleeding
 - b. Abdominal pain
 - c. Sexual assault

DECLARATIVE

- I. Introduction
 - A. Disorders in the female reproductive system can lead to gynecological emergencies
 - B. Etiology
 - 1. Acute or chronic infection
 - 2. Hemorrhage
 - 3. Rupture
 - 4. Ectopic pregnancy
 - C. Some conditions can be life-threatening without prompt intervention
- II. Review of the anatomy and physiology of the female reproductive system
 - A. Identification and physiology of specific body parts
 - 1. External genitalia (vulva)
 - a. Mons pubis
 - b. Labia
 - (1) Majora
 - (2) Minora
 - c. Prepuce
 - d. Clitoris
 - e. Vestibule
 - f. Urinary meatus
 - g. Orifice of urethra
 - h. Vaginal orifice
 - i. Hymen
 - j. Perineum
 - k. Anus
 - 2. Internal genitalia
 - a. Vagina
 - b. Cervix
 - (1) Cervical canal
 - c. Uterus
 - (1) Fundus
 - (2) Body
 - (3) Uterine cavity
 - (4) Endometrium
 - (5) Myometrium
 - d. Fallopian tubes
 - e. Ovaries
 - (1) Corpus luteum
 - (2) Follicles
 - (3) Oocytes
 - B. Normal physiology
 - Menstruation
 - a. Normal discharge
 - (1) Blood, mucous, cellular debris from uterine mucosa
 - b. Approximately every 28 days
 - c. Menarche
 - (1) Initial onset occurring during puberty
 - d. Menopause

- (1) Cessation of ovarian function
- (2) Cessation of menstrual activity
- (3) Average age: late 40's
- 2. Ovulation
 - a. Egg (ovum) released from ovary following breaking of follicle
 - b. Usually occurs 14 days after the beginning of the menstrual cycle
- 3. Menstrual and ovarian cycles
 - a. Menstrual phase
 - (1) Occurs when ovum is not fertilized
 - (2) Discharge lasts on average 4-6 days
 - (3) Flow averages 25-60 ml
 - (4) Absent during pregnancy
- III. General assessment findings of the patient with a gynecological emergency
 - A. History of present illness
 - 1. SAMPLE
 - a. Associated symptoms
 - (1) Febrile
 - (2) Diaphoresis
 - (3) Syncope
 - (4) Diarrhea
 - (5) Constipation
 - (6) Urinary cramping
 - 2. Check for pain or discomfort
 - a. OPQRST
 - b. Abdominal
 - c. Dysmenorrhea painful menstruation
 - d. aggravation
 - (1) During ambulation
 - (2) Dyspareunia pain during intercourse
 - (3) Defecation
 - e. Alleviation
 - (1) Positioning
 - (2) Ceasing activity
 - 3. Present health
 - a. Note any pre-existing conditions
 - B. Obstetric history
 - 1. Gravida
 - a. Number of pregnancies
 - 2. Para
 - a. Number of pregnancies carried to term
 - 3. Previous cesarean sections
 - 4. Last menstrual period
 - a. Date
 - b. Duration
 - c. Normalcy
 - d. Bleeding between periods
 - e. Regularity
 - 5. Possibility of pregnancy
 - a. Missed or late period

- b. Breast tenderness
- c. Urinary frequency
- d. Morning sickness
 - (1) Nausea and/ or vomiting
- e. Sexually active
 - (1) Unprotected sex
- 6. History of previous gynecological problems
 - a. Infections
 - b. Bleeding
 - c. Miscarriage
 - d. Abortion
 - e. Ectopic pregnancy
- Present blood loss
 - a. Color
 - b. Amount
 - (1) Pads per hour
 - c. Duration
- Vaginal discharge
 - a. Color
 - b. Amount
 - c. Odor
- 9. Use and type of contraceptive
- 10. History of trauma to the reproductive system
- 11. Emotional distress
 - a. Degree
- C. Physical examination
 - Comforting attitude
 - a. Protect modesty
 - b. Maintain privacy
 - c. Be considerate of reasons for patient discomfort
 - 2. Level of consciousness
 - 3. General appearance
 - a. Skin and mucous membrane color
 - (1) Cyanosis
 - (2) Pallor
 - (3) Flushed
 - b. Vital signs
 - (1) Orthostatic measurement discrepancies
 - c. Bleeding and discharge
 - (1) Color
 - (2) Amount
 - (3) Evidence of clots and/ or tissue
 - d. Palpate the abdomen
 - (1) Masses
 - (2) Areas of tenderness
 - (3) Guarding
 - (4) Distention
 - (5) Rebound tenderness

IV. General management

- A. Support airway, breathing
 - Oxygen
 - a. High flow PRN
 - b. Ventilate as necessary
 - 2. Circulation
 - a. Intravenous access
 - (1) Typically not necessary
 - (2) If patient is demonstrating signs of impending shock or has excessive vaginal bleeding
 - (a) Large bore IV in a large vein
 - (b) Normal saline or lactated ringers
 - (c) Flow rate based on patient presentation
 - (d) Consider a second line
 - b. Monitor and evaluate for serious bleeding
 - (1) Do not pack dressings in vagina
 - (2) Discourage use of tampon
 - (3) Keep count of pads used
 - c. Shock impending
 - (1) Trendelenburg
 - (2) Consider use of MAST (PASG)
 - 3. Pharmacological interventions
 - a. Analgesia typically not appropriate
 - (1) Masks symptoms for medical diagnosis
 - (2) May mask deteriorating condition (e.g., emergent shock)
 - 4. Non-pharmacological interventions
 - a. Position of comfort and care
 - (1) Based on patient's presentation
 - (2) Left lateral recumbent
 - (3) Knee/ chest
 - (4) Hips raised/ knees bent
 - b. Cardiac monitoring PRN
 - c. Consider possibility of pregnancy
 - (1) Be prepared for delivery
 - (2) Consider ectopic pregnancy
 - 5. Transport considerations
 - a. Physician evaluation necessary
 - b. Surgical intervention may be necessary
 - c. Consider emergency transport to an appropriate facility
 - 6. Psychological support/ communications strategies
 - a. Calm approach
 - b. Maintain modesty/ privacy
 - c. Gentle care
- V. Specific gynecological emergencies
 - A. Non traumatic abdominal pain
 - 1. Pelvic inflammatory disease (PID)
 - a. Cause
 - (1) Acute or chronic infection
 - b. Organs affected by PID
 - (1) Initial access through vagina, ascends to other organs

- (a) Cervix
- (b) Uterus/ endometrium
- (c) Fallopian tubes
- (d) Ovaries
- (e) Uterine and ovarian support structures
- (f) Liver
- c. Complications
 - (1) Sepsis
 - (2) Infertility
- d. Specific assessment findings
 - (1) Lower abdominal pain
 - (2) Fever may be present
 - (3) Vaginal discharge
 - (4) Dyspareunia
 - (5) Patient doubled over when ambulating
 - (6) Abdominal guarding
 - (7) Acute onset typically within approximately one week of menstrual period
 - (8) III appearance
- e. Management
 - (1) See "general management"
- 2. Ruptured ovarian cyst
 - a. Organs affected
 - (1) Ovary
 - b. Complications
 - (1) Significant internal bleeding could occur, but is rare
 - c. Specific assessment findings
 - (1) May have sudden onset of severe lower abdominal pain
 - (2) Typically affects one side, may radiate to back
 - (3) Rupture may result in some vaginal bleeding
 - d. Management
 - (1) See "general management"
- 3. Ectopic pregnancy
 - a. Incidence
 - (1) Consider possibility for any female of reproductive age with abdominal pain
 - b. Cause
 - (1) Ovum develops outside of the uterus
 - (a) Previous surgical adhesions
 - (b) Pelvic inflammatory disease
 - (c) Tubal ligation
 - (d) Use of an IUD
 - c. Organs affected
 - (1) Fallopian tubes
 - d. Complications
 - (1) May be life-threatening
 - (2) May lead to hypovolemic shock
 - e. Specific assessment findings
 - (1) Severe abdominal pain, may radiate to the back
 - (2) Amenorrhea absence of monthly blood flow and discharge
 - (3) Vaginal bleeding absent or minimal

- (4) Upon rupture, bleeding may be excessive <u>and pain may decrease or</u> goes away
- (5) Shock signs and symptoms
- (6) Additional history
 - (a) Previous surgical adhesions
 - (b) Pelvic inflammatory disease
 - (c) Tubal ligation
 - (d) Use of an IUD
 - (e) Previous ectopic pregnancy
- (7) Additional physical exam
 - (a) Check for impending shock, orthostatic vital signs
 - (b) Presence and volume of vaginal blood
- f. Additional management
 - (1) See "general management"
 - (2) Second large bore IV line
 - (3) Trendelenburg, if shock impending
 - (4) Emergency transport to nearest surgically capable facility
- 4. Vaginal bleeding
 - a. Causes
 - (1) Menstruation
 - (a) Never assume that your emergency call for vaginal hemorrhage is due to normal menstruation
 - (b) Menorrhagia (heavy vaginal bleeding)
 - (2) Abortion/ miscarriage
 - (a) Assume always during first and second trimester of known or possible pregnancy
 - (b) Consider if last menstrual period > 60 days
 - (c) May have history of similar events
 - (d) Note particularly any tissue or large clots
 - i) If possible, collect material for pathological review
 - (e) Emotional support extremely important
 - (3) Placenta previa/ placenta abruption
 - (a) Vaginal bleeding in third trimester
 - (b) Always a serious emergency
 - (4) Other causes
 - (a) Lesion
 - (b) PID
 - (c) Trauma
 - (d) Onset of labor
 - b. Organs affected
 - (1) Female sexual organs
 - c. Complications
 - (1) May be life-threatening
 - (2) May lead to hypovolemic shock and death
 - d. Specific assessment findings
 - (1) Onset of symptoms
 - (2) Additional physical examination
 - (a) Check for impending shock, orthostatic vital signs
 - (b) Presence and volume of vaginal blood
 - e. Management

- (1) See "general management"
- B. Traumatic abdominal pain
 - Vaginal bleeding
 - a. Incidence
 - (1) Increasing
 - b. Causes
 - (1) Straddle injuries
 - (2) Blows to the perineum
 - (3) Blunt force to lower abdomen
 - (a) Assault
 - (b) Seat belt injuries
 - (4) Foreign bodies inserted into the vagina
 - (5) Abortion attempts
 - (6) Soft tissue injury
 - c. Organs affected
 - (1) Any or all of the pelvic organs
 - d. Complications
 - (1) Severe bleeding
 - (2) Organ rupture
 - (3) Hypovolemic shock
 - Specific assessment findings
 - (1) Consistent with severe internal injuries
 - f. Management
 - (1) See "general management"
- VI. Sexual assault
 - A. General findings and management
 - History

e.

- a. Do not inquire regarding the patient's sexual history or practices
- b. Do not ask questions that may cause patient to have guilt feelings
- 2. Common reactions
 - a. May range from anxiety to withdrawal and silence
 - b. Denial, anger, and fear are normal behavior patterns
- Assessment
 - a. Examine the genitalia only if necessary
 - (1) Presence of severe injury
 - b. Explain all procedures before doing an examination
 - c. Avoid touching the patient without permission
 - d. Maintain the patient's privacy/ modesty
 - e. Check for other physical injury
- 4. Management
 - a. Psychological support is very important
 - b. Provide a safe environment
 - c. Respond to victim's wishes to talk or not to talk
 - d. Do not use invasive procedures unless the situation is critical
 - e. This is a crime scene preserve any evidence
 - (1) Handle clothing as little as possible
 - (2) Paper bag each item separately
 - (3) Ask the patient not to change clothes, bathe, or douche
 - (4) Do not disturb the scene if possible

- (5) Do not clean wounds unless absolutely necessary
- (6) Do not allow the patient to drink or brush his or her teeth
- f. Maintain a non-judgmental/ professional attitude
 - (1) Be aware of your own feelings and prejudices
- g. Have female personnel attend to the female patient whenever possible
 - (1) Ask if female personnel are preferred
- h. Provide reassurance to patient
 - (1) Confidentiality is critical